# Sustainability 401

## Part 3: Keeping Up With The Jones

**October 30**
**Fort Lewis, WA**

# Corporate Case Study - Starbuck

# STARBUCKS' APPROACH

- **Identify inputs, outputs and flows – Starbucks is not a chain, but a system.**
- **Identify sources of value creation and destruction.**
- **Identify *significant* environmental aspects and impacts – *what matters and why*?**

***To highlight where and how to reinvent their business.***

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# STARBUCKS' APPROACH

**An assessment of the overall impact of *all* operations:**

- **Map material flows and operations**
- **Assess relative impact of all operations using TNS**
  - **4 System Conditions for sustainable society**
- **Establish forward-looking performance measures**
- **2-5 year planning tool for environmental performance initiatives**

# STARBUCKS' APPROACH

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**Assessment of environmental impacts of all operations**

- **Identified focus areas of *relative* importance**
- **Established performance metrics for focus areas**
- **Benchmarked against leaders & competitors**
- **Integrated into Strategic Planning process**

# STARBUCKS' APPROACH

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## Focus Areas

1. Sourcing: coffee, paper fiber, & tea
2. Transportation
3. Store design & operation: energy & water efficiency

**For each focus area:**

- Metrics for managing improved performance
- Natural resource efficiency metrics

# ootprint Focus Areas & Metrics

## SOURCING

| | Performance Metric |
|---|---|
| COFFEE: | Commitment to Origins Coffee (lbs) |
| TEA: | % Organic Tea (black & green) |
| PAPER: | % Chlorine-free Paper |
| | % Post-Consumer Paper Fiber |

## TRANSPORTATION

| | Performance Metric |
|---|---|
| | Fuel Efficiency of Fleet (MPG) |
| | # of Partners participating in carpooling |

# Footprint Focus Areas & Metrics

## STORE DESIGN & OPERATION

**Performance Metric**

Green Stores- Criteria To Be Defined
% of stores recycling
% of commuter mug $.10 discounts
Electricity, gas & water per transaction, $1 of sales, & square foot of retail space

# Footprint Focus Areas & Metrics

## Communicating Performance

**Increase in reusable serveware-**

Partner beverages in reusable serveware = avoidance of 12.2

million cups / year = $ 1.1 annual cost savings

**Energy conservation-**

.5% reduction in electricity = $140,000 annual savings

**Reputation management-**

Value of 45 million media impressions from release of Shade Grown Mexico (‘99) ~ $550,000.

# *Community Case Study #1*

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New York City, the State, and Catskills Watershed

# New York City Watershed Agreement

- New York City has some of the cleanest drinking water in the world
- The water source is the Catskill Mountain Watershed (1,600 sq mi)
- In 1990 EPA mandated that all public water supplies with surface water sources be filtered for microbes
- NYC would need to spend $4-$6 billion dollars to meet these mandates

# New York City Watershed Agreement

- New York City worked with upstate communities on land use, development planning, and agricultural best management practices that would improve water quality.
- Communities and NYC purchased select properties to be held undeveloped and in public trust.

# New York City Watershed Agreement

- New York City spent $550 million to improve their water system, upgrade aging sewage treatment plants, and replace failing septic systems in the Catskill watershed area
- Another $278 million has been spent for conservation easements and partnerships to protect forest lands
- The state of New York is also contributing funds to these programs

# New York City Watershed Agreement

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**Water quality improved to the point where the investment in system upgrades for systems within the watershed was unnecessary**

**Open Space preserved = 258,716 acres**

**Cost Avoided = $6 Billion**

**Total investment = $833 Million**

# *Community Case Study #2*

**Napa California and the Napa River Floodplain**

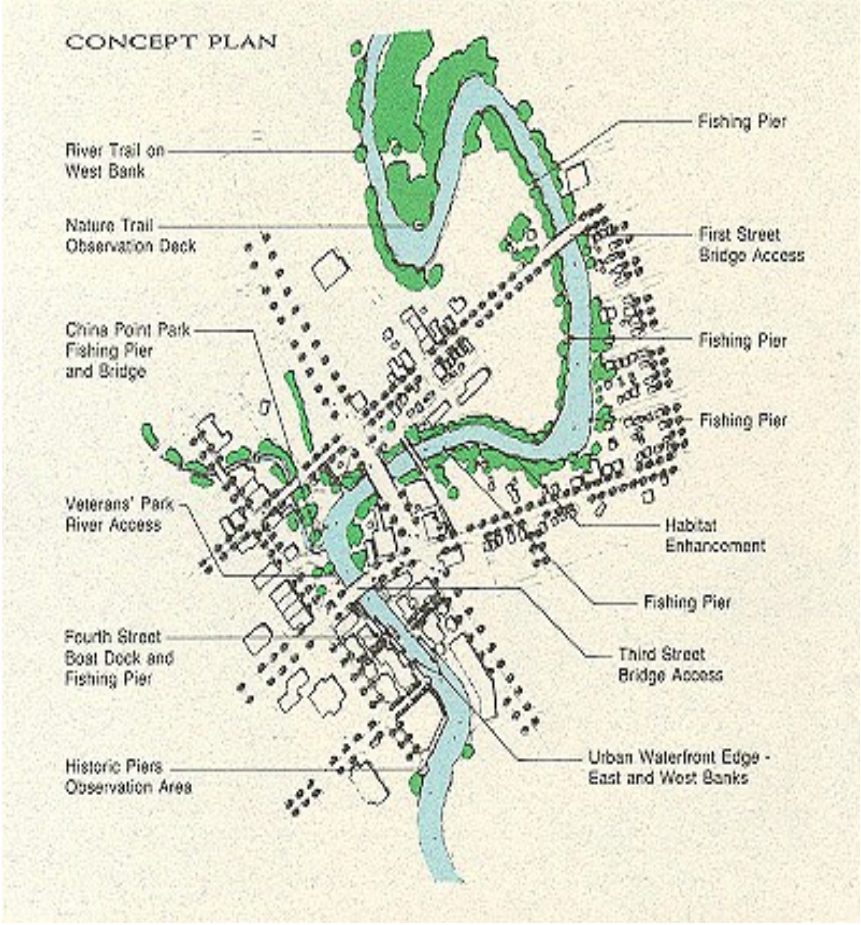
# Napa California - How a town can live with a river and not get soaked

By the late 1980s, the Napa River was more of a liability than an asset:

- **frankly ugly**
- **extensive levee system**
- **periodic flooding still a major problem**
  - **$542M property damage since 1960**
  - **3 deaths during one flood**
- **dying downtown**

# The Napa River flood control project

- Local community voted down 3 Corps proposals to straighten and channelize the river
- Community worked with the Corps to develop a precise definition of a “living river”
- Concept was to restore river and let it run free in original flood plain



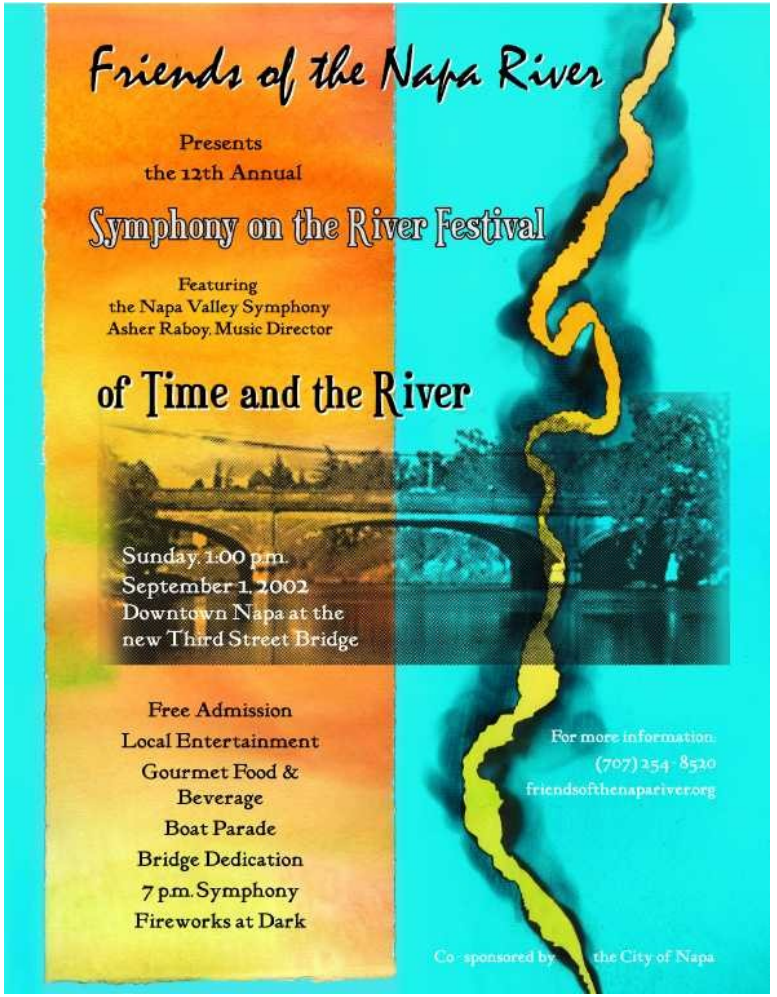
# The Napa River “flood promotion” project

- Total cost:  $240M

  GULP!
- County residents voted to raise sales tax $3.9M/year
- 300 people/businesses relocated
- 9 bridges removed; 5 replaced at higher locations

# Napa River Results

- Estimated $22M/year avoided flood damage to property
- Flood insurance rates reduced 20%
- Commercial real estate values up almost 20%
- A revitalized river and city



# The Napa River flood promotion project

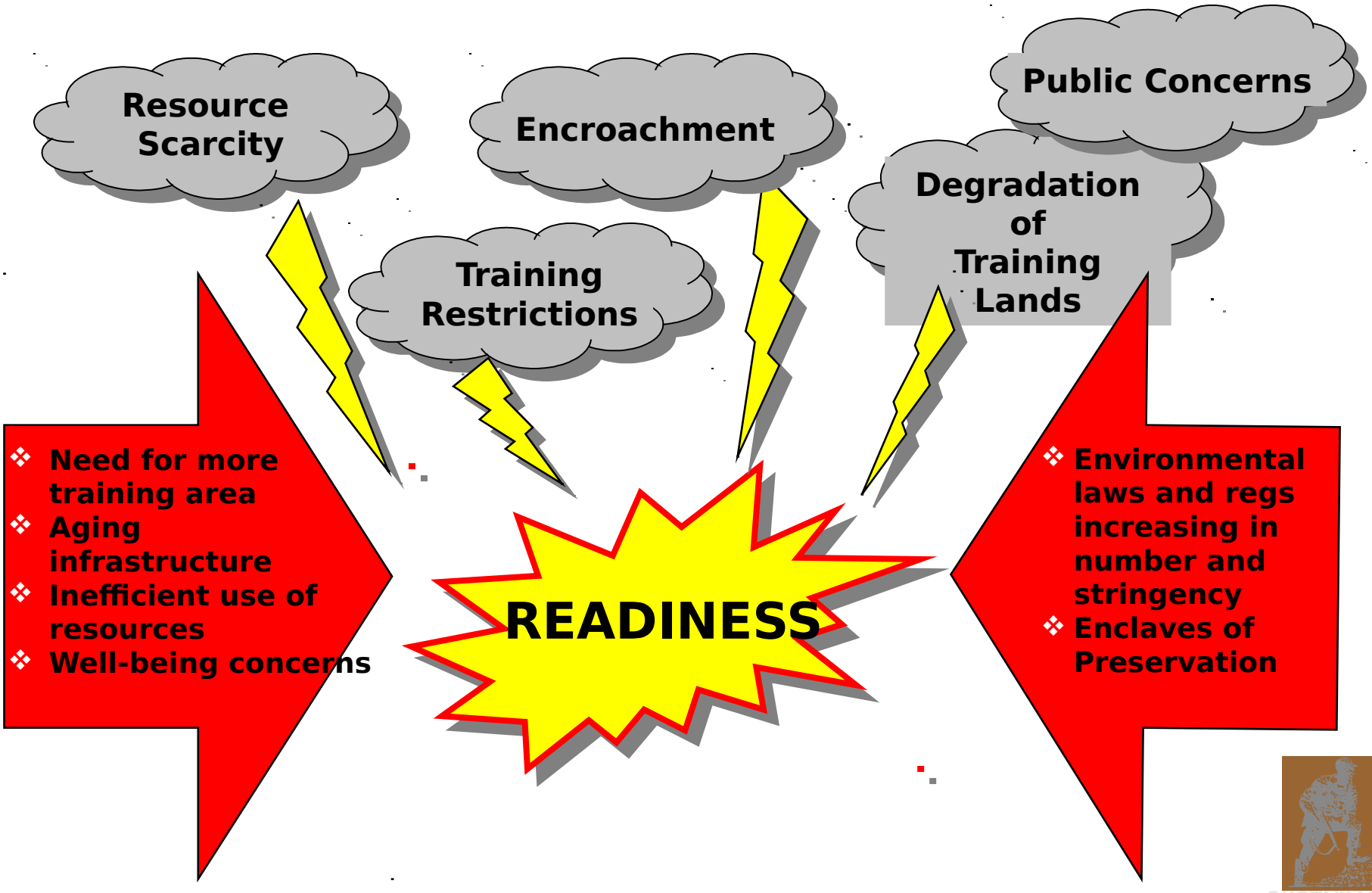
"The public can decide its own future…as long as you have a really *loud* public."

Karen Rippey
former officer Friends of the Napa River
current USACE Sacramento District

# Federal Agency Case Study

**Slides graciously provided by Paul Wirt and Christine**

# The Situation



# Resource Issues That Could Threaten the Mission

- **An estimated 125,000 acre training shortfall – and a community growing up against the fenceline**
- **Degraded air quality, which soon will not meet federal standards for ozone and particulate matter – perhaps resulting in constraints on smoke/obscurant use, construction, and transportation**
- **A water demand of over 3 billion gallons each year from the Little River– while the upstream Raleigh-Durham community demand for water from the same river is growing exponentially**
- **Skyrocketing resource costs: $30M/year for energy alone**

# The Fort Bragg Legacy

**Fort Bragg is the world's premie
power projection platform**

**Environmental challenges, if ignored, could impact our ability to train
nd deploy soldiers**

**How do we preserve the Fort Bragg legacy?**

# A Challenge

***COL Addison Davis***
*U.S. Army Fort Bragg*
*Garrison Commander*
*2001-2003*

**"Examine the baseline issues, determine the end-state we want to achieve, set aggressive, attainable, and quantifiable goals; and pull together teams that engage the right stakeholders to ensure Fort Bragg's history of proud service to the nation, and the world, continues indefinitely.**

# Engage Stakeholders at all Levels

- Military
- Family members
- Employees (Gov/Contractor)
- Local/regional community
- County commissioners
- Mayors
- Town managers
- Governor
- Regional planning committees
- EPA
- NCDENR - State regulators
- USFWS
- SREO
- Land Use Advisory Committee
- Universities/local schools
- USGS
- FORSCOM
- AEC
- USACE/CERL
- AEPI
- Research institutes
- DA
- DoD
- NC Sandhills Partnership
- NC Natural Heritage Program
- NC Park Service
- NC Forest Service
- Sandhills Area Land Trust
- Environmental Defense Fund
- Private Lands Initiative

# Sustainability Events and Timeline

- 2000 Sustainability program started, baseline document
- Apr 01 First Installation Sustainability Conference
- Jul 01 Goal Teams Formed
- May 02 Working 5-year Resource Plan Completed
- Oct 02 Sustainable Sandhills Begins
- Feb 03 Sustainable Sandhills Kickoff Conference
- Feb 03 Revalidation of Sustainable Fort Bragg Vision & Goals
- Apr 03 Sustainable Sandhills Executive Committee Formed
- May 03 Sustainable Sandhills Training and Workshop
- June 03 Finalized 5-Year Resource Plan

# Sustainable Fort Bragg Vision

In order to maintain the Fort Bragg legacy and to continue to train troops to standard, it is necessary to integrate long-term sustainable planning into the day-to-day operations of the installation. Our vision is an installation that will:

- Provide soldiers with the necessary training to ensure mission success without compromising local or regional environmental quality;
- Be recognized as a world leader in practicing global citizenship and promoting sustainability values;
- Continuously seek new technologies, share lessons learned, and promote the exchange of ideas with the region and communities;
- Restore and protect these valuable assets for future generations, as nationally recognized stewards of significant cultural and natural resources; and
- Be an integral part of a healthy and thriving region, where all enjoy a high quality of life and access to vital resources.

# Goals

1. Reduce amount of water taken from Little River by 70% by 2025, from current withdrawals of 8.5 million gallons/day. (Environmental/Maintenance)
2. All water discharged from Fort Bragg will meet or exceed North Carolina state high quality water (HQW) standard, by 2025. (Environmental/ITAM)
3. Landfill waste to be aggressively reduced toward 0 by 2025.(Environmental/Maintenance)
4. Meet minimum platinum standard for all construction by 2020 program, and renovate 25% of all existing structures to at least a bronze standard by 2020 (using the Sustainable Project Rating Tool – SPiRiT).(Engineers)
5. Adopt compatible land use laws/regulations with local communities by 2005. (Master Planning/Training)
6. Reduce energy use in accordance with Executive Order 13123.(PW Business Office)

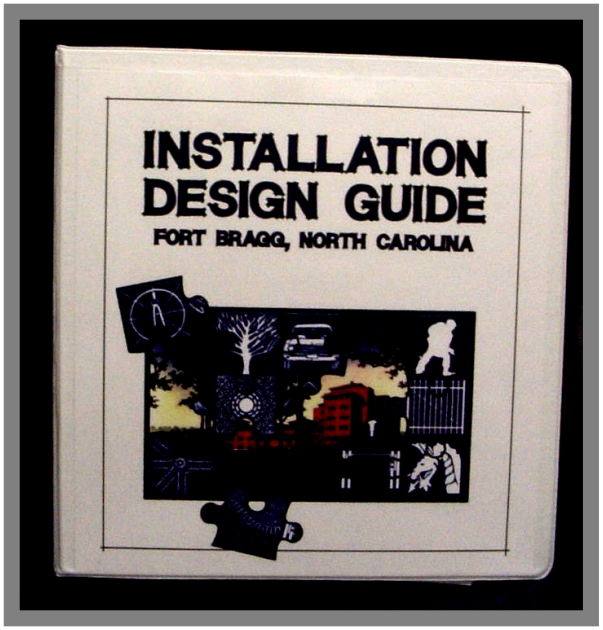
# Goals (continued)

7. Develop and implement an effective regional commuting program by 2015.(Transportation/Master Planning)
8. Reduce the use of both gasoline and diesel in the non-tactical fleet by 70 percent by 2015 and 99 percent by 2025. (Transportation/Master Planning)
9. Develop an integrated environmental education program for Fort Bragg, its surrounding communities and interested parties.(G3/Training)
10. Work towards 100% Environmentally Preferred Purchasing by 2025 for all purchases, including government purchase card, contract, and military requisition. (Logistics/Contracting)
11. Implement a scientifically-based conservation program for natural and cultural resources compatible with military readiness and training.(Natural/Cultural Resources)

# Early Successes

Sustainable Design Team:

- Updated the Installation Design Guide to reflect Sustainable Design Standards.
  - Completed Sept 2003.
- Demonstration project using Sustainable Design Standards for storm water and pervious pavement management in FY 2002-03.



# Early Successes

Waste Management Team:

- Began diverting concrete from the construction debris landfill, stockpiling and grinding concrete into usable gravel for down range road projects in FY2001.
  - Diverting in excess of 100,000 tons annually.
- Established curb-side recycling for Army Family Housing (~5000 quarters) residents on Fort Bragg in September 2001.
  - Program continued by RCI Partner beginning 1 Aug 03.

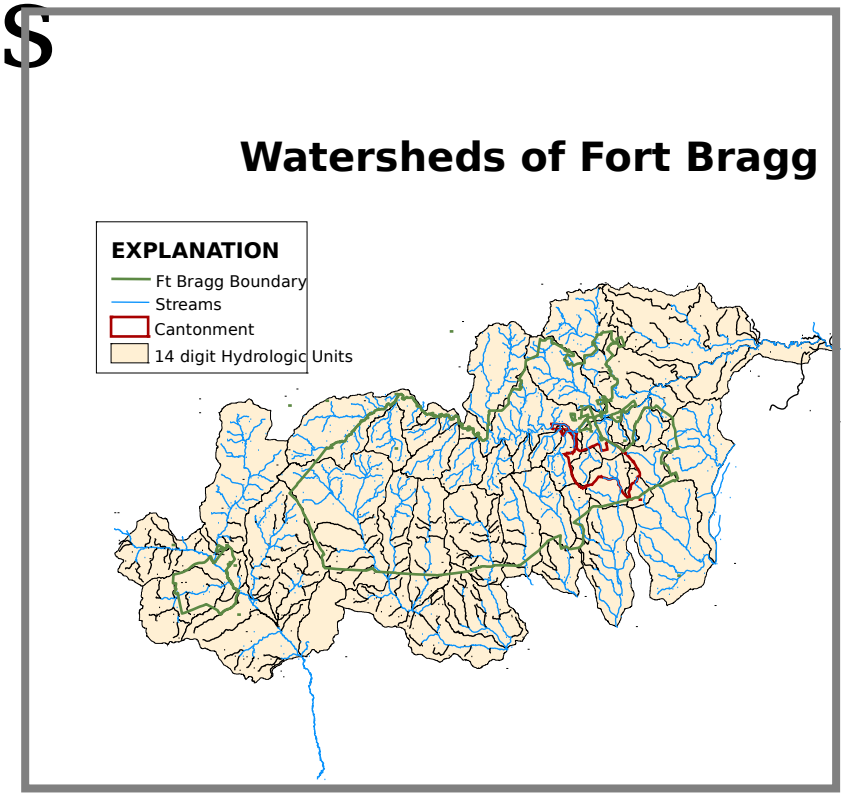
# Early Successes

- Waste Management Team: Landfill diversion for FY02 was ~**59%** due to concrete grinding, soil reclamation, and curb-side recycling.

# Early Successes

Water Quality Team:

- Developed quick assessment procedures to rapidly assess impacts and allow for corrective actions for erosion control projects to minimize sedimentation. (WETO project).
- Low Impact Development Training for environmental staff, engineers, A&E firms, regulators and project managers.



# Early Successes

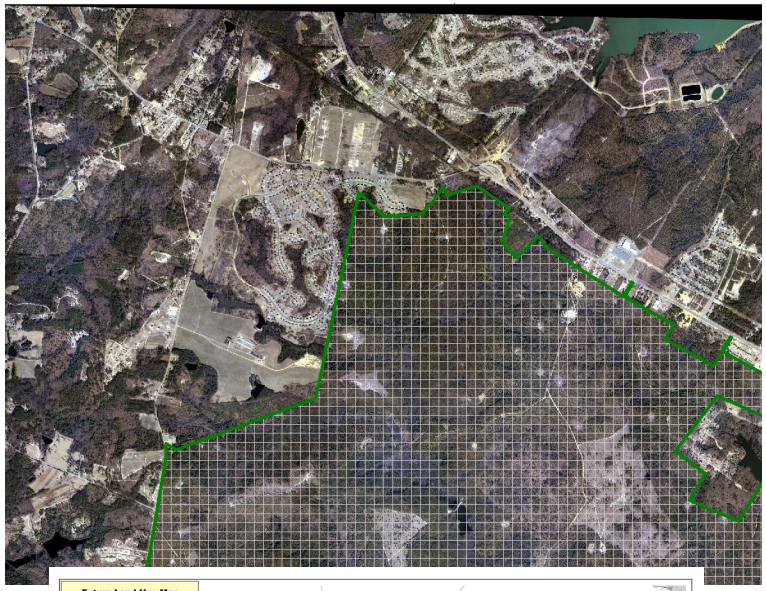
Water Supply Team:

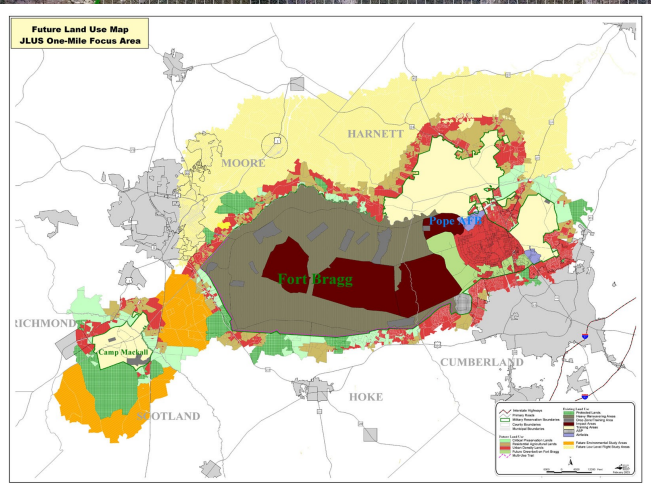
- Initiated feasibility study for reclaiming treated wastewater in a non-potable irrigation system in FY01;
  - Began preliminary system design in FY02;
- Reduced Potable Water Consumption by 30% in 2002.

# Early Successes

Land Use Team:

- Development of a 6-county and Fort Bragg GIS for use by all county and municipality planners to assist in land-use decisions and target conservation opportunities.
- Predictive modeling for future land-use along the installation boundary to support on-going Joint Land Use Study and future land use decisions.






*Fort Bragg/Pope Air Force Base Proposed Future Land Use Map*

# Early Successes

Energy Team:

- Developed web-based energy awareness training module in partnership with local university.
- Installed solar/wind powered lighting at remote access control point.
- Working with RCI partner to develop energy awareness program and energy efficient family housing designs that meet SPiRiT requirement

# Early Successes

Transportation/Air Quality Team

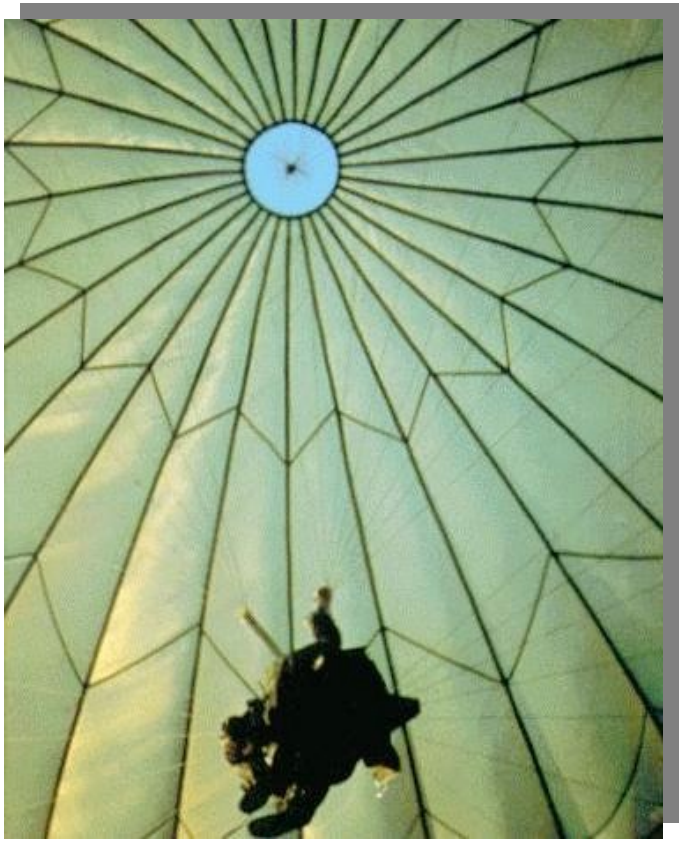
- Converted Range Control Vehicles to B20 (20% biodiesel);
- Implemented an internal bus system to support mobilized reservists
- Participated in Early Action Compact with Cumberland County, NC DENR and EPA

# Early Successes

- Sustainable Design Team:
  - SPiRiT Training and Workshop for Engineer Project Managers;
  - Inclusion of SPiRiT requirements into all RFP's beginning in FY03;
  - First "Gold" facility under construction; 36,000+ square foot Golden Knights facility

*Construction Site for the new "Golden" Knights Parachute Team.*

# Early Successes



**“People who attempt the difficult often attain the impossible.”**

Incredible progress in two years-

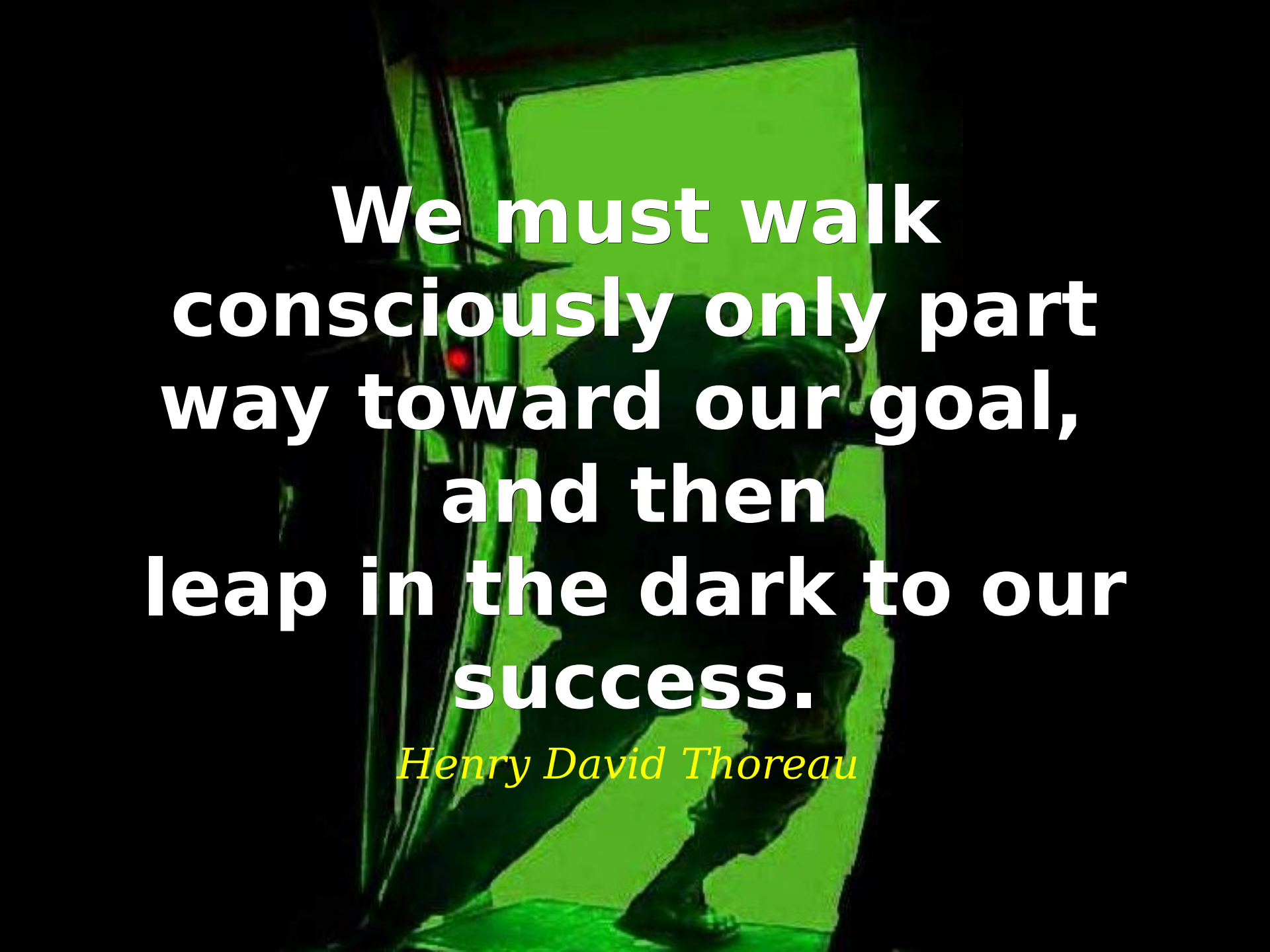
without huge investments of $s-

by people pulling together towards common goals.

# The Next Step: Sustainable Sandhills

*"You can be a Hero, a Nero, or a Zero"*

SUSTAINABLE FORT BRAGG


We must walk consciously only part way toward our goal, and then leap in the dark to our success.
Henry David Thoreau

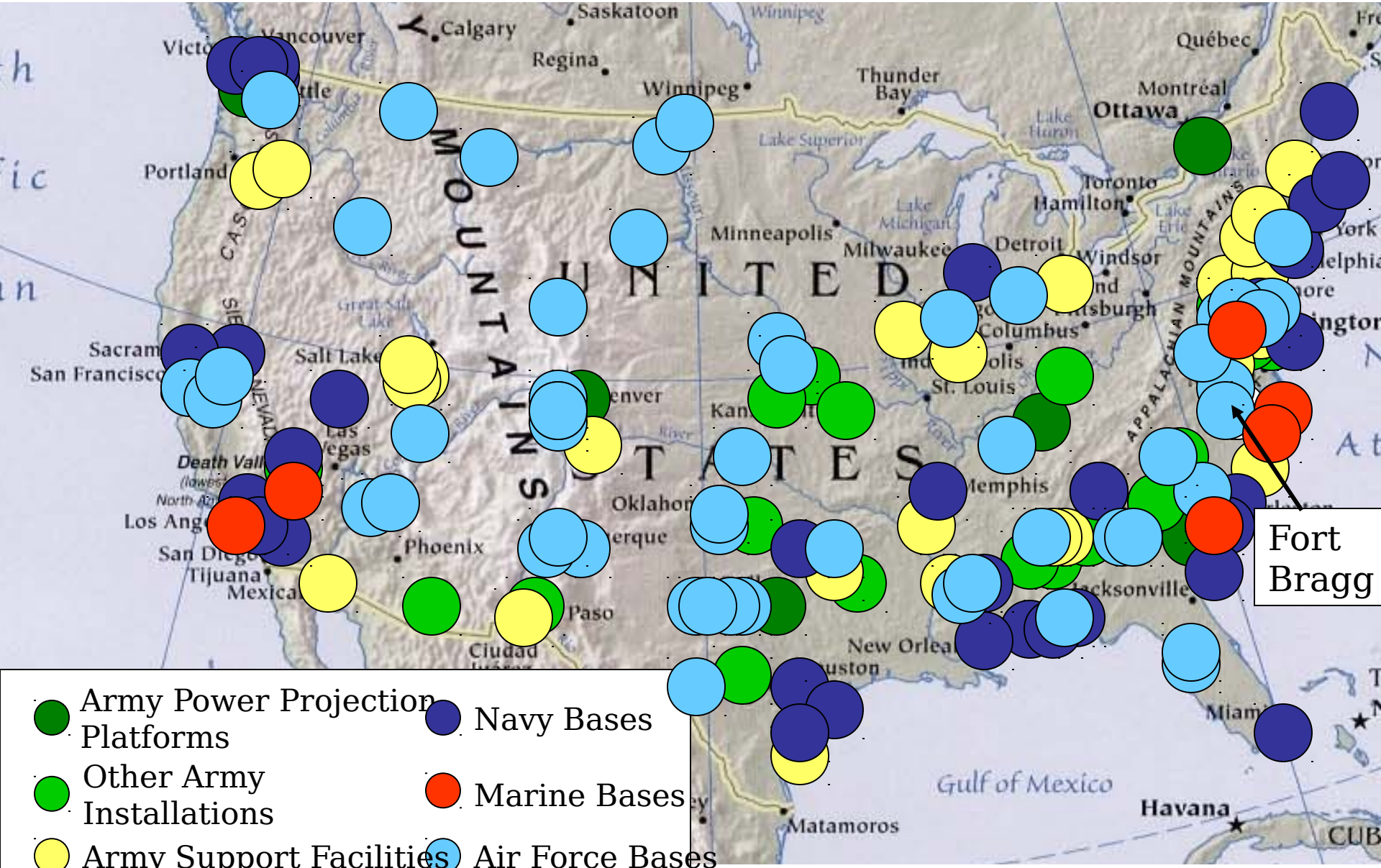
# Summary

- Sustainability is beginning to take hold at various levels – there is nothing to fear.
- Innovation is resolving hard problems and resulting in better products/services at less cost and lower impact.
- Federal facilities can and are doing this with success.

**We set 25 year goals. I don't think I will be working here then to see if we are successful. I may never see whether or not all this fuss amounts to anything… but we set 25 year goals. Not for ourselves but for our children and their children. They will live the legacy we leave them.**

***Barry Hull***
***Ft. Bragg Sustainability Trainer***
***US Army Officer***

# *Military Sphere of Influence*



# A Challenge

**The most important question in life is…….**

**what to do next.**

***Remember that part about saving the world….???***

# A Modest Proposal

(as proposed 30 Oct 2003)

- Get leadership commitment to defined partnership goals (Feb 04)
- Expand your understanding of sustainability (now)
- Identify mission challenges (by 15 Mar 04)
- Identify/integrate on-going initiatives (May 04)
- Establish state-wide goals that support common challenges and opportunities (May 04)
- Present goals to leadership (Jul 04)
- Layout plan of attack (Sep 04)
- Brief backs to leadership quarterly

# A Modest Proposal

(as revised at end of 30 Oct 2003)

Goal: Integrated Sustainability Program Statewide–DOD & non-DOD

- Washington DOD Sustainability Partnership – charter (Feb 2004)
- All WA installations/infrastructure/bases/properties establish long-term sustainability goals (2004) and programs (2005) integrated with EMS
  - Expand understanding of sustainability (on-going) – training, briefing
  - Identify/integrate on-going initiatives
  - Recruitment effort – POCs from installations, bases and team members (Jan 04)
  - Identify mission challenges (by Mar 04)
  - Prioritization
- Get all DOD entities together to identify common goals (2005)
  - Establish state-wide goals that support common challenges and opportunities
- Involve federal, tribal, and state organizations (2006)
- Brief backs to leadership quarterly at JFLOC

# Do you agree?

- Right steps?
- Right Order?
- Right timeframe?
- Anything missing?

# Leadership Commitment

- Specific product - statement of unity, partnership agreement
- Who will lead?
- Who will support?
- Major tasks:

# Expand your understanding

- How – book club?
- Who will lead?
- Who will support?
- Timeframe?
- Major tasks:

# Identify Mission Challenges

- How will you do this at your installation?
- Who needs to be involved?
- Why do this?
- How will you communicate?

# Identify and Integrate

- Who will lead?
- Who will support?
- Engagement strategy

# Establish State-wide Goals

- Who will lead/host?
- How to structure next session?

# Final thought…

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**“Never doubt that a small group of committed citizens can change the world… indeed, it’s the only thing that ever has.”**

**Margaret Mead**